



ATARI DEALER SERVICE ALERT

ISSUE # 1

JUNE 1986

Welcome to the ATARI Independent Service Center (ISC)/Independent Computer Specialty Service Center (ICSSC) Factory Authorized Network.

My name is Randy Hain. I am the Technical Services Manager for ATARI. As some of you have been with ATARI many years and others only a few months I would like to take this opportunity to outline the current ATARI Service policy.

We at ATARI firmly believe in the Performance, Quality and Reliability of our products. As with any item, some units will not function properly. ATARI has developed the following system for the repair and/or replacement of any product that may exhibit a problem within the warranty period.

As indicated above there are two (2) types of service centers, ISC & ICSSC. They are similar in that each is fully capable of repairing defective items. The distinction between them is that an ICSSC MUST sell as well as service our 16 Bit product line as well as any other part of the line he wishes. The ISC, for the most part, is a "Service ONLY" center and will be the most likely to handle the older games and computers for our customers. All Dealers selling the "ST" line (520 & 1040) must be an ICSSC and perform their own service.

4% Service Allowance

A 4% D.F.I. deduction will be allowed on all products, except software, purchased from ATARI to cover the cost of parts and labor required to repair any item requiring service during the warranty period. Example: for each 1040ST Color System you may deduct 4% or \$33.60 based on the 05/01/86 Dealer Cost of \$840.00. For ten (10) systems it is \$336.00, and for fifty (50) systems it is more than \$1,600.00 in your pocket.

Any new ATARI dealer who orders the 1040 or 520ST computers will have a 14-day "burn-in" period from the date of invoice to unpack and inspect the computers for defectives. If any defects are discovered the dealer is to notify ATARI (408) 745-4342) to request an RMA (Return Material Authorization). When calling you will need to supply the following information: Sales Order Number, Model Number, Serial Number and Reason for return.

Following the 14-day "burn-in" period, the servicing of any defectives is the responsibility of the dealer and is covered by this 4% D.F.I. service allowance. New Dealers will have six months from the time of becoming an ATARI dealer to exercise this policy.

Existing ATARI Dealers may also take advantage of the "burn-in" period for new machines (i.e., the 1040ST) for six (6) months after first shipment.

Software Defectives: ATARI CORP. will deduct 2% from customer invoice for software purchases. This 2% D.F.I. covers all in warranty customer returns. ATARI CORP. will not accept any defective software returns. All software defectives sent to ATARI will be disposed of and no credit given.

Service Policy & Procedures

As repairs or adjustments are needed in or out of warranty, the ISC or ICSSC will perform the required service for his customer. The cost of these services will be from his "4% Service Fund" or the customer for post warranty service.

Service Options

There are four (4) levels of Service Support offered on most ATARI products which are:

1. Whole Unit Exchange Service (pricing enclosed)
2. Subassembly Exchange Service (pricing enclosed)
3. Proprietary Component Parts Sales (pricing enclosed)
4. Technical Documentation & Support (FSM's)

Each product will have at least one or two of these options open to the servicing dealer.

Technical Documentation & Support:

Most products will have a detailed Service Manual with parts list, mechanical & electronic drawings, as well as a system overview. Each ISC & ICSSC can ask questions of the technical support group at (408) 725-2466. Please keep this number for "Dealers only". End users will not be best served at this number (they should call Customer Relations at (408) 745-2367).

Whole Unit Exchange Program

Each ATARI product will be covered by this program. Any defective product may be returned to ATARI for exchange with a fully functioning unit. In some cases ATARI may substitute a similar or better product, this will be done when we are unable to complete the exchange in a timely manner. If you must have the same model back you should check in advance as to current status on that model.

To exchange a whole unit you should do the following:

1. Pack unit complete with all accessories.
2. Enclose check for exchange charge (see pricelist).
3. Ship PREPAID to:
ATARI CPS
360 Caribbean Drive, Door #4E
Sunnyvale, CA 94089

Typical turnaround is 3-5 days at exchange center. These units will carry the same 90 day warranty as the current product.

Sub Assembly Exchange Program

This program is for Service Centers to make the best use of their technical staff, offering an opportunity for them to "find & fix" the problem in a minimum amount of time. Most of our products will be supported by this level of service.

Each covered product will be divided into functional blocks i.e., PCBA, Keyboard, Power Supply, etc. Each of these blocks can be replaced with a minimum of time spent, to insure that the problem is corrected quickly.

When an item is found at fault you will have to either replace (for those without exchange privilege) or exchange with ATARI Service as follows:

1. Place in antistatic material (bag or foam)
2. Insure that item is properly packaged to prevent shipping damage (it is suggested that the original packing material be used when available).
3. Enclose a check in the amount for that exchange (see exchange pricelist).
4. Ship PREPAID to:
CPS - PCB EXCHANGE
360 Caribbean Drive, Door #4E
Sunnyvale, CA 94089

Typical turnaround is 3-5 days at exchange center.

NOTE: Most assemblies have "natural" divisions i.e., PCB w/shield or Drive Mechanism w/shield. Do not send 2 assemblies together, i.e., Drive & Interface Board, unless you wish to be charged for both.

Surcharges

Each item will be inspected for damage. If there is "minor" damage i.e., single missing chip, shield or solder bridge, there will be a 100% surcharge, \$55.00 will be \$110.00.

If there is "major" damage i.e., more than one item missing or excessive solder damage, ATARI will not allow an exchange credit on that item. We will notify the Service Center and scrap such item unless advised otherwise. The warranty for these exchanges is the same as for any part, See PARTS RETURNS in Exhibit "C" of your ISC/ICSSC Agreement.

Proprietary Components Sales

ATARI may provide parts at the component level for any given model. These parts will always include those parts that are only available from ATARI i.e., Custom IC's & plastic parts. We reserve the option to supply these items at a higher subassembly level. Example, when a "name plate" is ordered we may elect to sell an "upper housing" which includes the "name plate".

Many of the electronic parts are common items and should be off the shelf at many local component supply houses, i.e., Hamilton Avnet or Wyle/Elmar.

If you are having difficulty sourcing an item please contact the ATARI Parts Department at (408) 745-5501 for assistance.

Summary

Important Phone Numbers

*408-745-2466	Technical Support
*408-745-5501	Dealer Parts Information
408-745-2367	End User Information
*408-745-	Dealer Bulletin Board (coming in July)

*Dealer use only. Please don't give out to end users. May require authorization to use.

Important Addresses

For Whole Unit Exchanges: ATARI-CPS
360 Caribbean Drive, Door 4E
Sunnyvale, CA 94089

For SubAssembly Exchanges: CPS-PCB
360 Caribbean Drive, Door 4E
Sunnyvale, CA 94089

Parts Orders/RMA Requests:
(From Exhibit "C") ATARI CORP.
1196 Borregas Avenue
Sunnyvale, CA 94086



1 June 1986

The attached Price List is for use by Approved ISC & ICSSC's.

In order to provide better service to our dealers & customers we have reviewed the previous Parts List with an eye to minimize the amount of commonly available parts i.e., resistors, capacitors, transistors, etc..

With this new Parts List you will continue to have access to all of the ATARI Proprietary Parts and Test Data.

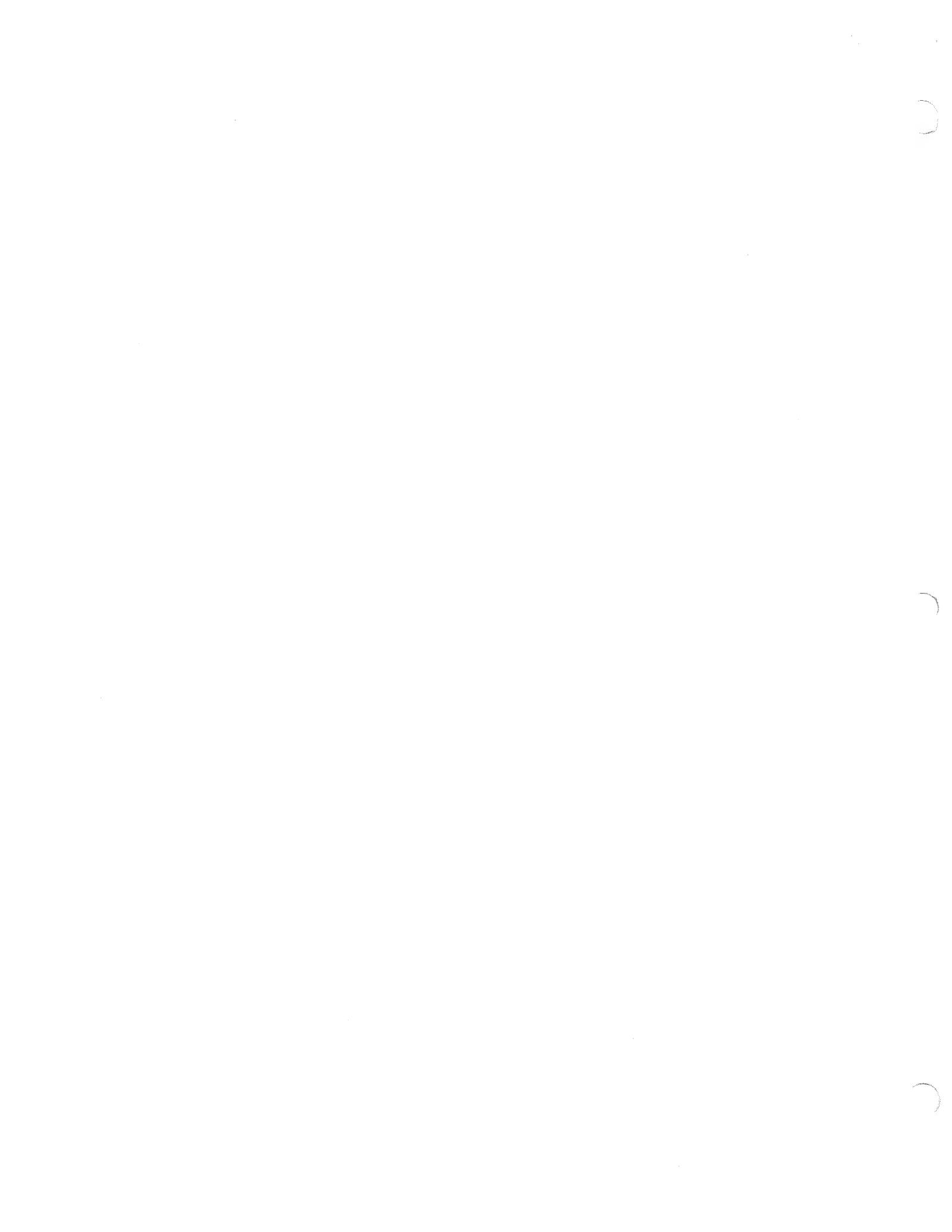
Also included is the Whole Unit & Subassembly Exchange Price List. I feel that many of you will be able to handle the more difficult repairs with this program.

If there are any items you find deleted from the current list that you are having problems finding at your local Parts House please contact ATARI Parts Department at (408) 745-5501 and we will assist you in locating a source or add it to our Price List.

Until our stock of some Non-Proprietary items is depleted, we will continue to ship them until they are gone.

A handwritten signature in black ink that reads "Randy Hain". The signature is fluid and cursive, with "Randy" on top and "Hain" below it, slightly overlapping.

W.R. (Randy) Hain
Technical Services Manager



PART NUMBER	DESCRIPTION	PRICE
130XE FSM	MANUAL 130XE REFERENCE	5.00
A003647	RF CABLE ASSEMBLY	1.50
C010174	IC TRANS ARRAY CA3085	1.00
C010388-01	SWITCH SPRING RETURN	1.00
C010444	IC CUSTOM TIA "STELLA"	6.25
C010448	CONN SOLDER RT ANGLE	1.00
C010726	CABLE CUSTOM 6 WIRE	1.25
C010739	FIRE BUTTON -CX30	1.00
C010745	IC 6507 MPU	4.00
C010750	IC 6532 PIA	6.25
C010816	IC CD4050B	1.00
C010819	USE C014348 -VOLTAGE REGU	1.00
C011298	IC CUSTOM ROM	5.00
C011299	IC CUSTOM ROM	5.00
C012099	IC CUSTOM ROM 4K X 8 -850	7.50
C012284	CRYSTAL 4.433618 MHZ	1.50
C012294	IC CUSTOM CHIP "POKEY"	6.00
C012295	**USE C014805 IC GTIA CUS	10.00
C012296	IC CUSTOM ANTIC REV "D"	7.00
C012399	IC CUSTOM ROM (2K)	5.00
C012499	IC CUSTOM ROM (4K)	7.50
C012951	SPRING -FIRE BUTTON CX40	1.00
C012980-04	KEYTOP (START)	1.00
C012980-05	KEYTOP (SELECT)	1.00
C012980-06	KEYTOP (OPTION) -800	1.00
C012990	KEYTOP /SYSTEM RESET -800	1.00
C012995	CONN RT ANGLE (13 PIN)	1.50
C014106	HOLE COVER LABEL -810	1.00
C014316	CRYSTAL 1.000000MHZ	6.00
C014320	IC OP AMP LM324	3.00
C014322	CONN EDGE 22/44PIN	3.75
C014323	CONN EDGE 28/56PIN	4.75
C014328	TRANSISTOR ARRAY 6810	5.00
C014329	IC 1771 FFD	19.00
C014331	IC RAM (16K)	3.25
C014332	IC LM311	1.00
C014333	IC TRANS ARRAY 4011	1.00
C014334	IC TRANS ARRAY 4013B	1.00
C014348	VOLTAGE REG 78M05 5V	1.00
C014349	VOLTAGE REG 78M12 12V	1.00
C014351	TRANSISTOR	1.25
C014379	RESISTOR NETWORK (9 X 4.7	1.00
C014384	INDUCTOR FERRITE BEAD AX	1.00
C014386-09	SOCKET 40PIN	1.00
C014795	IC 6520A PIA	5.00
C014805	IC CUSTOM GTIA CHIP	10.00
C014806	IC CUSTOM "SALLY"	8.00
C015925	INDUCTOR .82UH 10%	1.00
C018082	IC RAM (16K X 1)	8.00
C018110	BEZEL TOP -CX52	1.00

(NOTE: ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE)

PART NUMBER	DESCRIPTION	PRICE
C019062	CONN 9PIN SUB'D' RIGHT AN	1.00
C019156	IC CUSTOM ROM OS -5200	7.50
C021697	IC CUSTOM ANTIC "E" -130X	7.00
C024947A	IC CUSTOM ROM BASIC "C" -	7.50
C025912	IC CUSTOM MMU	20.00
C025913	IC CUSTOM DMA CONTROLLER	19.00
C025914	IC CUSTOM VIDEO SHIFTER	19.00
C025915	IC CUSTOM GLUE CHIP	20.00
C025944	CRYSTAL 32.0424MHZ	1.50
C025953	IC CUSTOM GATE ARRAY -130	3.50
C025982	IC 68000-8 CPU	18.00
C025983	IC SOUND Y-2149 -ST	6.50
C025984	IC 68901 MFP	11.00
C025985	IC 6850 ACIA	3.00
C025986	IC RS-232 DRIVER 1488	1.00
C025987	IC RS-232 RECEIVER 1489	1.00
C025988	IC PHOTOCOUPLER PC-900	1.75
C025991	IC DRAM 256K X 1 150NS	7.00
C025993	CRYSTAL 2.4576MHZ -ST	1.50
C026028	IC FFD CONTROLLER WD1772	16.00
C026034	IC ROM BOOT -520ST	10.00
C026035	IC ROM BOOT -520ST	10.00
C026051-001	MANUAL OWNERS 520ST	3.00
C026052-001	MANUAL OWNERS SF354	1.00
C026118	MANUAL FIELD SERVICE -520	20.00
C026140	DIAGNOSTIC KIT -520ST	150.00
C026160	IC TOS ROM #1 (U2)	10.00
C026161	IC TOS ROM #2 (U3)	10.00
C026162	IC TOS ROM #3 (U4)	10.00
C026163	IC TOS ROM #4 (U5)	10.00
C026164	IC TOS ROM #5 (U6)	10.00
C026165	IC TOS ROM #6 (U7)	10.00
C026170	CABLE DMA PORT 19PIN	12.50
C026224-001	DISKETTE BLANK BOX OF (5)	10.00
C026287	DIAGNOSTIC & DOUC KIT -ST	175.00
C060549	IC MPU 8048	7.50
C060609	IC MMU "HAL" -1200XL	14.00
C060616	IC ROM OS 8K X8 -1200XL	10.00
C060617	IC ROM OS 8K X 8 -1200XL	10.00
C060618	MODULATOR RF -1200XL	7.25
C061090	CRYSTAL 3.579545MHZ -1200	1.50
C061505	IC RAM (16K X 4)	14.00
C061598	IC CUSTOM ROM 16K X 8 OS-	10.00
C061618	IC CUSTOM MMU -XE	14.00
C061838	CONN 7PIN DIN POWER -XE	1.50
C061922	***USE C061991 *** IC CUS	0.00
C061982	AC ADAPTER 6/800XL & XE'S	11.00
C061991	IC CUSTOM "FREDDIE"	6.00
C070000-001	RF MODULATOR -XE	7.25
C070006	SWITCH POWER SPDT ROCKER	1.50

(NOTE: ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE)

PART NUMBER	DESCRIPTION	PRICE
C070015	KEYBOARD ASSY -130XE	18.00
C070024	PCB ASSY MODULE OSC. 14.3	5.00
C070033	CONN DIN 5PIN	1.00
C070091-011	POWER SUPPLY -SF314/354	24.00
C070099	520 PWR SUPPLY	35.00
C070119	SWITCH RESET (PUSH) -520S	1.00
C070120	SOCKET 68PIN SQUARE	3.00
C070122-002	IC CPU K/B -ST	10.00
C070127	SWITCH POWER DPDT ROCKER	1.75
C070129	CONN RT ANGLE 40PIN	2.00
C070130	CONN DMA PORT DB-19	2.00
C070131	CONN 14PIN DIN	2.00
C070134	CONN 13PIN DIN VIDEO	2.00
C070135	CONN 7PIN DIN MALE POWER	1.00
C070139-002	CABLE 14PIN FDD I/O .75M	11.50
C070219	MECH 3.5" (EPSON)	85.00
C070246	CRYSTAL 3.579545 MHZ	1.50
C070258	KEYCAP SET -ST	10.00
C070263	RIBBON CART XMM/SMM 801/4	7.75
C070264	CABLE INTERFACE -SC1224	12.50
C070349-001	POWER CORD -1040ST	7.50
C070350-002	MECH 3.5" DUAL-NEWTRONICS	110.00
C070352-002	MECH 3.5" DUAL -CHINON	110.00
C070355	MANUAL FIELD SERV -SF354E	20.00
C070359	MANUAL FIELD SERV -SF314E	20.00
C070433	MANUAL FIELD SERV-SC1224J	20.00
C070434	MANUAL FIELD SERV -SMM804	20.00
C070435	MANUAL FIELD SERV -XXM801	20.00
C070491	RF MODULATOR -520/1040STM	30.00
C070713	CLIP SQUARE CHIP (68PIN)	0.10
CA010112	ANTENNA SWITCH BOX ASSY	2.70
CA010410	RF MODULE ASSY -2600	5.00
CA012174	RF MODULATOR ASSY -2600	5.00
CA012952-02	KEYBOARD ASSY -300	25.00
CA014072	DISK DRIVE ASSY -810M	75.00
CA014120	ANTENNA SWITCH BOX	1.75
CA014122	CABLE I/O DATA (3 FEET)	13.50
CA014155	PCB ASSY PWR SUPPLY -400	35.00
CA014784	POWER CORD ASSY -820	10.00
CA015796	CARTRIDGE SOCKET ASSY-260	6.00
CA016741	PCB JOYSTICK CX40 (USE FK)	1.25
CA017207	MECH 5.25" TANDON -810	80.00
CA017936	PCB ANALOG (810M/T)	45.00
CA017947	CABLE INTERCONNECT -810	4.25
CA017999	KEYBOARD ASSY -400	20.00
CA018145	CABLE ASSY CX52 CONTROLLE	6.00
CA018218	RF CABLE ASSY -5200	3.00
CA021374	PCB ASSY MAIN -5200-2P	50.00
CA024624-001	CABLE RF -600XL	3.00
CA026259-001	IC TOS ROM SET (6 PCS.)	60.00

PART NUMBER	DESCRIPTION	PRICE
CA026289-001	SERVICE / REPAIR KIT -ST	1500.00
CA026290-001	SERVICE / REPAIR KIT -XE	400.00
CA026291-001	DIAGNOSTIC & DOCUMENT -XE	125.00
CA026297-003	DIAG 3.3/.5 UPGRADE-520ST	35.00
CA060046	KEYBOARD ASSY -1200XL	35.00
CA060588	PCB ASSY MAIN -1200XL	95.00
CA060606	CONN CABLE ASSY -1200XL	1.75
CA061177	RF CABLE ASSY -1200XL/780	1.75
CA061982	ADAPTOR POWER -65/130XE	11.00
CA070012-001A	PCB ASSY -130XE	90.00
CA070022-005	KEYBOARD ASSY -520ST	50.00
CA070052-001	PCB ASSY-520ST W/TOS&MODU	250.00
CA070052-102	PCB ASSY-520ST W/TOS ONLY	225.00
CA070057-005	KEYBOARD ASSY -1040ST	60.00
CA070059-002	PWR SUPPLY ASSY -1040ST	45.00
CA070063	PCB ASSY I/O & POWER SW -	20.00
CA070068-001	SPARE PARTS KIT -520ST	750.00
CA070097-001	PCB ASSY W/O MOD -1040STF	350.00
FA100011	HEAD ASSY P/R -410C	6.50
FA100012	TRANSTEK DOOR ASSY -410	1.50
FA100032	LOAD PAD ASSY -810	2.00
FA100034	BAND/PULLEY ASSY -810	19.00
FA100193	SWITCH ASSY WRITE PROTECT	17.50
FA100197	DRIVE ASSEMBLY 810	75.00
FA100224	TAPE DRIVE MOTOR 9V -1010	16.00
FA100233	PCB ASSY -1010S	15.00
FA100246	MOTOR TAPE DRIVE 9V -1010	16.00
FA100249	DOOR & DOOR LENS -1010C	1.50
FA100255	PCB ASSY -1010C	15.00
FA100621	SUBASSY POWER SWITCH/LED	4.75
FC100013	BELT COUNTER -410	1.00
FC100014	BELT DRIVE MOTOR -410	1.00
FC100015	BELT TAPE DRIVE -410	1.00
FC100196	BELT DRIVE MOTOR -810	3.50
FC100541	IC ROM 2332 -1050	12.50
FD100002	MANUAL FIELD SERV 400/800	20.00
FD100003	MANUAL FIELD SERVICE -810	20.00
FD100004	MANUAL FIELD SERVICE -410	20.00
FD100006	DIAGNOSTIC CART -810	35.00
FD100008	TAPE TEST -410	5.00
FD100009	TAPE SCRATCH -410	5.00
FD100026	DISKETTE PREFORATED DYMEX	5.00
FD100036	MANUAL FIELD SERVICE -810	20.00
FD100046	PCB DIAG LOOPBACK -5200	35.00
FD100048	MANUAL FIELD SERVICE -820	20.00
FD100053	DISKETTE WORK -810	5.00
FD100127	MANUAL FIELD SERVICE-5200	20.00
FD100133	MANUAL FIELD SERVICE-2600	20.00
FD100176	MANUAL FIELD SERV -CX85	20.00
FD100217	MANUAL FIELD SERV -1200XL	20.00

(NOTE: ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE)

PART NUMBER	DESCRIPTION	PRICE
FD100220	TAPE TEST DIGITAL	5.00
FD100221	TAPE TEST AUDIO 3KHZ	5.00
FD100223	MANUAL FIELD SERVICE-1010	20.00
FD100268	MANUAL FIELD SERVICE -835	20.00
FD100288	MANUAL FIELD SERVICE-1020	20.00
FD100290	MANUAL FIELD SERVICE-1025	20.00
FD100330	MANUAL FIELD SERVICE-1050	20.00
FD100557	DIAGNOSTIC DISK 1.0 -1050	10.00
FD100570	MANUAL FIELD SERVICE-CX55	20.00
FD100660	MANUAL FIELD SERVICE-CX22	20.00
FD100670	MANUAL FIELD SERVICE-1027	20.00
FD100690	DISKETTE MASTER -1050	5.00
FD100740	MANUAL FIELD SERV -800XL	20.00
FK100172	DIY KIT JOYSTICK REPAIR	2.50
FK100175	PCB JOYSTICK REPLACEMENT	1.75
FK100304	DIY KIT PADDLE CONTRLR PO	3.00
FK100307	DIY KIT 9PIN CONNECTOR -	3.00
FK100308	DIY KIT POWER JACK -2600	1.00
FK100309	DIY KIT SWITCH SLIDE/MOM	2.50
FK100310	DIY KIT COAX CABLE -2600/	2.75
MA017600	DIAGNOSTIC CART 2.6 -2600	35.00
MA017601	CART SIGNAL TRACKING -260	35.00
TE15638	SERIAL PORT BOARD 400/800	28.00
TE15639	PERIPHERAL PORT PLUG	12.00

(NOTE: ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE)



ISC / ICSSC EXCHANGE PRICE LIST

1 JUNE 1986

PART NUMBER	DESCRIPTION	(DEALER)	(DEALER)	PURCHASE COST (1)	COST (2)
		EXCHANGE	PURCHASE		
1040ST	1040 CPU COMPUTER COMPLETE	\$125.00	N/A	WHOLE UNIT COMPLETE	
CA070097-001	1040 PCB ASSEMBLY	\$65.00	\$350.00		
CA070057-005	1040 KEYBOARD ASSEMBLY	\$30.00	\$60.00		
C070350-002	1040 INTERNAL DRIVE 1M	\$60.00	\$110.00		
CA070059-002	1040 POWER SUPPLY	\$30.00	\$45.00		
520ST	520 COMPUTER COMPLETE	\$95.00	N/A	WHOLE UNIT COMPLETE	
CA070052-001	520 PCB ASSY W/TOS & MOD	\$55.00	\$250.00		
CA070052-102	520 PCB ASSY W/TOS ONLY	\$55.00	\$225.00		
CA070022-005	520 KEYBOARD ASSEMBLY	\$25.00	\$50.00		
C070099	520 POWER SUPPLY	N/A	\$35.00		
CA070025	MOUSE	\$20.00	\$30.00		
SF354	DISK DRIVE 500K	\$75.00	N/A	WHOLE UNIT COMPLETE	
SF314	DISK DRIVE 1M	\$90.00	N/A	WHOLE UNIT COMPLETE	
C070219	SF354 DISK DRIVE MECHANISM	\$50.00	\$85.00		
C070314	SF314 DISK DRIVE MECHANISM	\$60.00	\$110.00		
C070091-011	SF DISK DRIVE POWER SUPPLY	N/A	\$24.00		
CA070063	INTERFACE PBCA I/O SF DRIVES	N/A	\$20.00		
C070139-002	CABLE, INTERFACE DRIVE .75M	N/A	\$11.50		
SM124	SM124 BLACK & WHITE MONITOR	\$60.00	N/A	WHOLE UNIT ONLY	
SC1224	SC1224 COLOR MONITOR	\$95.00	N/A	WHOLE UNIT ONLY	
C070264	CABLE, SC1224 COLOR MONITOR	N/A	\$11.50	WHOLE UNIT ONLY	
SMM804	PRINTER 80 COL DOT MATRIX	\$75.00	N/A	WHOLE UNIT ONLY	
XMM801	PRINTER 80 COL DOT MATRIX	\$75.00	N/A	WHOLE UNIT ONLY	
130XE	130XE COMPUTER COMPLETE	\$65.00	N/A	WHOLE UNIT COMPLETE	
CA070012-001	130XE PCB ASSEMBLY	\$40.00	\$90.00		
C070015	130XE KEYBOARD ASSEMBLY	N/A	\$18.00		
C061982	130XE POWER SUPPLY	N/A	\$11.00		
A1050	DISK DRIVE (8BIT)	\$75.00	N/A	WHOLE UNIT ONLY	
A1027	PRINTER 'LQ' REPLACE W/ XDM	\$75.00	N/A	WHOLE UNIT ONLY	

NOTE(A): PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE(B): PRICES INCLUDE SURFACE FREIGHT, ANY OTHER WILL BE SENT FREIGHT COLLECT.

- (1) THESE PRICES ARE FOR COMPLETE, UNDAMAGED, SUBASSEMBLIES, IF THERE IS ANY 'MINOR' DAMAGE, ie: A SINGLE MISSING CHIP OR SIMPLE SOLDER DAMAGE, THERE WILL BE A SURCHARGE OF 100% OF THE EXCHANGE PRICE.
- (1a) IF THE DAMAGE IS MORE EXTENSIVE THE ITEM WILL NOT BE ACCEPTED FOR EXCHANGE. THE DEALER WILL BE NOTIFIED, AND THE ITEM WILL BE SCRAPED.
- (2) THESE PRICES ARE FOR COMPLETE UNITS, IF ANY OF THE STANDARD ACCY'S OR MANUALS ARE MISSING THEY WILL BE CHARGED FOR C.O.D.

CA026289-001

ST SERVICE/REPAIR PARTS KIT

03/01/86

PART NUMBER	DESCRIPTION	KIT QTY	USED ON
C025912	IC; CUSTOM MMU	2	COMMON
C025913	IC; CUSTOM DMA CONTROLLER	2	COMMON
C025914	IC; CUSTOM VIDEO SHIFTER	2	COMMON
C025915	IC; CUSTOM GLUE CHIP	2	COMMON
C025944	CRYSTAL; 32.0424 MHZ	1	COMMON
C025978-001	RES; NETWORK 10K OHM X 9 10 PIN	1	COMMON
C025982	IC; 68000-8 CPU	1	COMMON
C025983	IC; YM-2149 SOUND CHIP	2	COMMON
C025984	IC; 68901 MFP	2	COMMON
C025985	IC; 6850 ACIA	1	COMMON
C025988	IC; PC-900 PHOTOCOUPLER	2	COMMON
C025993	CRYSTAL; 2.4576 MHZ	1	COMMON
C026028	IC; WD1772 FFD CONTROLLER	1	COMMON
C026034	IC; 64K BOOT ROM #1	1	COMMON
C026035	IC; 64K BOOT ROM #2	1	COMMON
C026051-001	OWNERS MANUAL	1	520ST
C026160	IC; ROM TOS-U2	1	COMMON
C026161	IC; ROM TOS-U3	1	COMMON
C026162	IC; ROM TOS-U4	1	COMMON
C026163	IC; ROM TOS-U5	1	COMMON
C026164	IC; ROM TOS-U6	1	COMMON
C026165	IC; ROM TOS-U7	1	COMMON
C070006	POWER SWITCH (C061022/ALT)	1	520ST
C070099	POWER SUPPLY	2	520ST
C070129	CONN; 40 PIN R-ANGLE	1	COMMON
C070130	CONN; DB-19P HARD DISK	1	COMMON
C070131	CONN; 14 PIN DIN	1	COMMON
C070132	CONN; DB-25P RS-232C	1	COMMON
C070133	CONN; DB-25S PARALLEL	1	COMMON
C070134	CONN; 13 PIN DIN VIDEO	1	COMMON
C070135	CONN; 7 PIN DIN MALE/POWER	1	520ST
C070242	LINE FILTER; SNH19L-0601-4	2	520ST
C070258	KEYCAP KIT (1 EACH KEY)	2	COMMON
C070349-001	POWER CORD 1040ST	1	1040ST
C070350-002	MECH; 3.5" DUAL NEWTRONIC	1	1040ST
C070352-002	MECH; 3.5" DUAL CHINON	SUB	1040ST
C070491	RF MODULATOR	1	COMMON
CA070016-001	BOTTOM HOUSING W/FEET	1	520ST
CA070020-001	TOP HOUSING/INDICATOR/NAME PLATE	1	520ST
CA070022-005	KEYBOARD ASSEMBLY	1	520ST
CA070025	MOUSE	1	COMMON
CA070052-001	PCB ASSEMBLY W/SHIELDS	1	520ST
CA070057-005	KEYBOARD ASSEMBLY W/CPU	1	1040ST
CA070059-002	POWER SUPPLY ASSEMBLY	1	1040ST
CA070097-001	PCB ASSEMBLY W/O MODULATOR	1	1040ST

C026287

ST DIAGNOSTIC & DOCUMENTATION

03/01/86

PART NUMBER	DESCRIPTION	KIT QTY	USED ON
C020118-002	FIELD SERVICE MANUAL	1	ST
C070355	FIELD SERVICE MANUAL	1	SF354E
C070359	FIELD SERVICE MANUAL	1	SF314E
C070433	FIELD SERVICE MANUAL	1	SC1224J
C070434	FIELD SERVICE MANUAL	1	SMM804
CA026240-005	DIAGNOSTIC ASSEMBLY COMPLETE 3.5	1	ST

CA026297-003 DIAGNOSTIC UPGRADE FROM REV 3.3 TO 3.5 03/01/86

PART NUMBER	DESCRIPTION	KIT QTY	USED ON
CA026364-002*	ST DIAGNOSTIC ROM SET REV 3.5 WITH DOCUMENTATION	1	ST
C020118-002	FIELD SERVICE MANUAL	1	ST
C070355	FIELD SERVICE MANUAL	1	SF354E
C070359	FIELD SERVICE MANUAL	1	SF314E
C070433	FIELD SERVICE MANUAL	1	SC1224J
C070434	FIELD SERVICE MANUAL	1	SMM804

* NOTE: IF YOU HAVE A 520ST DIAGNOSTIC ASSEMBLY (C026240) YOU NEED ONLY ORDER THIS UPGRADE.

CA026290-001 XE SERVICE/REPAIR PARTS KIT 03/01/86

PART NUMBER	DESCRIPTION	KIT QTY	USED ON
	130XE COMPLETE	1	XE
	1050 COMPLETE	1	1050

CA026297-003 XE DIAGNOSTIC & DOCUMENTATION KIT 03/01/86

PART NUMBER	DESCRIPTION	KIT QTY	USED ON
130XE FSM	130XE REFERENCE MANUAL	1	130XE
C070435	XMM801 FIELD SERVICE MANUAL	1	XMM801
FD100330	1050 FIELD SERVICE MANUAL	1	1050
FD100670	1027 FIELD SERVICE MANUAL	1	1027
CA026365-001	DIAGNOSTIC ASSY XE/XL REV 3.4	1	XE/XL



TECHNICAL ADVICE NOTICE

MODEL/ASSY = 1040STF / SC1224 DATE = 1 JUNE 1986

REFERENCE = NONE

TAN # = 0001

EFFECTIVITY: AS REQUIRED - NOT MANDATORY

ISSUE: SOME UNITS EXHIBIT DISTORTED SCREEN DISPLAYS.

DESCRIPTION: THERE ARE 2 (TWO) DIFFERENT REPORTED SYMPTOMS, SOMETIMES APPEARING TOGETHER.

- A) GHOSTING ON THE RIGHT OR LEFT SIDE OF VERTICAL LINES AND OR CHARACTERS.
- B) WAVY HORIZONTAL LINES ON THE LEFT 1/4 TO 1/3 OF THE SCREEN - RUNNING THE VERTICAL LENGTH OF DISPLAY.

PROBLEM: EXCESSIVE CAPACITANCE ON THE MONITOR OUTPUT LINES.

SOLUTION: REPLACE CAPACITORS ON R,G, & B OUT, VSYNC & HSYNC LINES
DISASSEMBLE 1040
REPLACE THE FOLLOWING:

<u>COMPONENT</u>	<u>WAS</u>	<u>IS</u>	<u>NOTES</u>
C109 THRU C113	470PF	22PF	OTHER SPECIFICATIONS SAME

REASSEMBLE 1040

ADDITIONAL INFO: THIS SYMPTOM MAY OR MAY NOT BE CORRECTED BY SWAPPING THE MONITOR, CABLE & CPU, AS MOST MONITORS WILL WORK WITH THE HIGHER CAPACITANCE.

DOCUMENTS: SCHEMATIC C070522 REV A



TECHNICAL ADVICE NOTICE

MODEL/ASSY = 1040STF

DATE = 1 JUNE 1986

REFERENCE = PENDING

TAN # = 0002

EFFECTIVITY: AS REQUIRED - NOT MANDATORY

ISSUE = EXCESSIVE NOISE (WHINE OR WHISTLE) FROM POWER SUPPLY AREA OF SOME CPU'S.

DESCRIPTION: HI PITCH SOUND APPROXIMATELY 15-17 KHZ IS AUDIBLE.

PROBLEM: THE 12V INVERTER, U62 (TL497A), IS BEING OPERATED AT THIS FREQUENCY, AND, IN SOME CASES, WILL PRODUCE AN AUDIBLE LEVEL OF SOUND.

SOLUTION: INCREASE THE INVERTER OPERATING FREQUENCY
DISASSEMBLE 1040
REPLACE THE FOLLOWING:

<u>COMPONENT</u>	<u>WAS</u>	<u>IS</u>	<u>NOTES</u>
R17	1 OHM	5 OHM	OTHER SPECIFICATIONS SAME
L4	100 μ H	220 μ H	OTHER SPECIFICATIONS SAME
C28	100PF	330PF	OTHER SPECIFICATIONS SAME

MEASURE 12V AT JP2(+) & JP3(-), SHOULD BE \pm 15%

REASSEMBLE 1040

ADDITIONAL INFO: MOST UNITS, >80%, DO NOT PRODUCE THIS SOUND AT A PERCEPITBLE LEVEL AND THERE IS NO REASON TO BELIEVE THAT THEY WILL EVER CROSS THAT THRESHOLD. IN ANY CASE, THE CIRCUIT FUNCTION IS NOT EFFECTED BY THE PRODUCTION OF AUDIBLE SOUND.

DOCUMENTS: SCHEMATIC C070522 REV A



TECHNICAL ADVICE NOTICE

MODEL/ASSY: 1040STF

DATE: 1 JUNE 1986

REFERENCE: NONE

TAN #: 0003

EFFECTIVITY: NONE - INFORMATION ONLY

ISSUE: UNUSUAL SOUNDS FROM DISK DRIVE MECHANISM

DESCRIPTION: THERE ARE SEVERAL DIFFERENT REPORTS:

- A) CLUNKING OR HARD STEP NOISE
- B) SCREACHING (UNLUBRICATED METAL ON METAL)
- C) GRINDING & RATCHETING

PROBLEM: AT THIS TIME THERE ARE NO "PROBLEMS" RELATED TO THESE "SOUNDS".

SOLUTION: SUGGESTIONS FOR THESE COMPLAINTS OR PREVENTION:

- A) THESE DRIVES (NEWTRONICS) MAKE MORE NOISE THAN THE PREVIOUS TYPES USED IN THE SF SERIES.
- B) EXCHANGE DRIVE MECHANISM TO CONFIRM "PROBLEM".

ADDITIONAL INFO: IF THERE IS A FUNCTIONAL PROBLEM, I.E., WON'T READ OR COMPATIBILITY, YOU SHOULD FOLLOW STANDARD REPLACEMENT/REPAIR PROCEDURES.

DOCUMENTATION: N/A



TECHNICAL ADVICE NOTICE

MODEL / ASSY = "ST" SERIES

DATE = 1 JUNE 1986

REFERENCE = NONE

TAN # = 0004

EFFECTIVITY: AS REQUIRED - NOT MANDATORY

ISSUE: SOME PRINTERS WILL NOT "WORK" WITH THE 520ST OR 1040STF

DESCRIPTION: EVEN WITH THE PROPER "DRIVER" (SOFTWARE) THE PRINTER WON'T RESPOND OR PRINTS ERATICLY.

PROBLEM: SOME PRINTER(S) FROM SOME MANUFACTURERS HAVE <2.0K OHM TERMINATION RESISTORS. THIS REQUIRES AN EXCESSIVE DRIVE CURRENT WHICH THE YM2149 CHIP CAN NOT PROVIDE.

SOLUTION: THESE ARE IN ORDER OF PREFERENCE:

- (A) USE DIFFERENT MAKE AND/OR MODEL PRINTER
- (B) CHANGE TERMINATION RESISTORS TO >3.3K OHM
- (C) INSTALL DRIVER BUFFER POWERED FROM THE PRINTER, AS THIS PORT IS BIDIRECTIONAL, WITH OPTION C YOU WILL LOSE THIS FEATURE.

ADDITIONAL INFO: I WILL BE PUBLISHING A LIST OF MODELS THAT HAVE BEEN FOUND TO WORK CORRECTLY, FROM A HARDWARE STAND POINT, WITHOUT MODIFICATION.

IF YOU CAN CONFIRM ADDITIONS TO THIS LIST PLEASE SEND THE NAME OF THE MANUFACTURER AND MODEL OF PRINTER YOU HAVE TESTED ALONG WITH THE SOFTWARE YOU USED.

DOCUMENTATION: N/A



TECHNICAL ADVICE NOTICE

MODEL/ASSY = "ST" SERIES

DATE = 1 JUNE 1986

REFERENCE = ST DIAGNOSTIC 3.3 - 3.5

TAN # = 0005

EFFECTIVITY: INFORMATION ONLY

ISSUE: ROM CHECKSUMS FOR "ST" SERIES

DESCRIPTION: N/A

PROBLEM: INFORMATION REQUIRED

SOLUTION: THE FOLLOWING IS THE P/N AND CHECKSUMS FOR THE U.S. VERSIONS OF ST PRODUCTS

<u>CHIP LOCATION</u>	VERSION			
	BOOT ROM	CHECKSUM	TOS ROM	CHECKSUM
U2			C026160-001	FBF1
U3			C026161-001	6E55
U4			C026162-001	F9CC
U5	C026034	D06A	C026163-001	95D8
U6			C026164-001	A85B
U7	C026035	A105	C026165-001	29E4

ADDITIONAL INFO: BOTH VERSIONS OF ROM WILL BE CHECKED BY THE DIAGNOSTIC AND PASSED IF EITHER VERSION IS PRESENT.

DOCUMENTATION: NONE



TECHNICAL ADVICE NOTICE

MODEL/ASSY = 520ST POWER SUPPLY DATE = 1 JUNE 1986

REFERENCE = NONE TAN # = 0006

EFFECTIVITY: INFORMATION ONLY

ISSUE: REPORTS THAT SOME SUPPLIES HAVE HAD >10V ON THE 5V LINE

DESCRIPTION: THERE ARE TWO (2) SUPPLIERS OF POWER SUPPLIES FOR THE 520ST. ONE WITH A HIGH PROFILE & LOUVERED OPEN COVER, THE OTHER HAS A LOW PROFILE & CLOSED COVER. THERE IS NO FUNCTIONAL DIFFERENCE BETWEEN THE SUPPLIES.

PROBLEM: A FEW OF THE "HIGH" PROFILE SUPPLIES HAVE HAD FROM 10-15 VOLTS ON THE 5V LINE (PINS 1 & 6 TO 3 & 7). THIS IS CAUSED BY THE LOSS OF FEEDBACK (SENSE) WITHIN THE SUPPLY CAUSING THE SUPPLY TO SEEK COMPLIANCE.

WE HAVE ONLY BEEN ABLE TO RECREATE THIS PROBLEM BY DROPPING THE SUPPLY CAUSING AN OPEN TRACE ON THE PCB.

SOLUTION:

- A) DO NOT DROP THE POWER SUPPLY
- B) MEASURE THE 5V LINE ON ALL SUSPECTED SUPPLIES
- C) REPLACE DEFECTIVE SUPPLY

ADDITIONAL INFO: ASIDE FROM THIS PROBLEM, THERE ARE NO OTHER REPORTS OF UNUSUAL FAILURES IN EITHER THE "HIGH" OR "LOW" PROFILE SUPPLIES.

DOCUMENTATION: N/A